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Substitute for form 1449A/B/PTO				<b>Complete If Known</b>	
				Application Number	NEW- 101736617
				Filing Date	December 12, 2003
				First Named Inventor	Kristy A. Campbell
				Art Unit	N/A 2829B
				Examiner Name	Not Yet Assigned V. YEVSIKOV
Sheet	1	of	8	Attorney Docket Number	M4065.0698/P698-A

CLASS  
SUB CLASS

<b>U.S. PATENT DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
AA	6,473,332	10/2002	Ignatiev et al.		
AB	4,316,946	1/1982	Masters, et al.		
AC	4,419,421	12/1983	Wichelhaus, et al.		
AD	6,487,106	11/26/2002	Kozicki		
AE	5,314,772	5/24/1994	Kozicki		
AF	2002/0190350 APP	12/19/2002	Kozicki		
AG	2003/0027416 APP	2/6/2003	Moore		
AH	2003/0001229 APP	1/2/2003	Moore et al.		
AI	2002/0127886 APP	9/12/2002	Moore et al.		
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AV	5,500,532	03/19/1996	Kozicki et al.		

<b>FOREIGN PATENT DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)			
VY	BA	WO 97/48032	12/18/1997	Kozicki et al.	
VY	BB	WO 99/28914	06/10/1999	Kozicki et al.	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
VY	CA	Abdel-All, A.; Elshafie,A.; Elhawary, M.M., DC electric-field effect in bulk and thin-film Ge5As38Te57 chalcogenide glass, Vacuum 59 (2000) 845-853.			
VY	CB	Adler, D.; Moss, S.C., Amorphous memories and bistable switches, J. Vac. Sci. Technol. 9 (1972) 1182-1189.			
VY	CC	Adler, D.; Henisch, H.K.; Mott, S.N., The mechanism of threshold switching in amorphous			

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Substitute for form 1449A/B/PTO				<i>Complete If Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				Application Number	NEW 101734617
Sheet	2	of	8	Filing Date	December 12, 2003
				First Named Inventor	Kristy A. Campbell
				Art Unit	N/A 2829
				Examiner Name	Not Yet Assigned Yevsi Kov
				Attorney Docket Number	M4065.0698/P698-A

		alloys, Rev. Mod. Phys. 50 (1978) 209-220.			
VY	CD	Afifi, M.A.; Labib, H.H.; El-Fazary, M.H.; Fadel, M., Electrical and thermal properties of chalcogenide glass system Se75Ge25-xSbx, Appl. Phys. A 55 (1992) 167-169.			
↑	CE	Afifi, M.A.; Labib, H.H.; Fouad, S.S.; El-Shazly, A.A., Electrical & thermal conductivity of the amorphous semiconductor GexSe1-x, Egypt, J. Phys. 17 (1986) 335-342.			
	CF	Alekperova, Sh.M.; Gadzhieva, G.S., Current-Voltage characteristics of Ag2Se single crystal near the phase transition, Inorganic Materials 23 (1987) 137-139.			
	CG	Aleksiejunas, A.; Cesnys, A., Switching phenomenon and memory effect in thin-film heterojunction of polycrystalline selenium-silver selenide, Phys. Stat. Sol. (a) 19 (1973) K169-K171.			
	CH	Angell, C.A., Mobile ions in amorphous solids, Annu. Rev. Phys. Chem. 43 (1992) 693-717.			
	CI	Aniya, M., Average electronegativity, medium-range-order, and ionic conductivity in superionic glasses, Solid state Ionics 136-137 (2000) 1085-1089.			
	CJ	Asahara, Y.; Izumitani, T., Voltage controlled switching in Cu-As-Se compositions, J. Non-Cryst. Solids 11 (1972) 97-104.			
	CK	Asokan, S.; Prasad, M.V.N.; Parthasarathy, G.; Gopal, E.S.R., Mechanical and chemical thresholds in IV-VI chalcogenide glasses, Phys. Rev. Lett. 62 (1989) 808-810			
	CL	Baranovskii, S.D.; Cordes, H., On the conduction mechanism in ionic glasses, J. Chem. Phys. 111 (1999) 7546-7557.			
	CM	Belin, R.; Taillades, G.; Pradel, A.; Ribes, M., Ion dynamics in superionic chalcogenide glasses: complete conductivity spectra, Solid state Ionics 136-137 (2000) 1025-1029.			
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	CR	Bernede, J.C., Switching and silver movements in Ag2Se thin films, Phys. Stat. Sol. (a) 57 (1980) K101-K104.			
	CS	Bernede, J.C.; Abachi, T., Differential negative resistance in metal/insulator/metal structures with an upper bilayer electrode, Thin solid films 131 (1985) L61-L64.			
	CT	Bernede, J.C.; Conan, A.; Fousenan't, E.; El Bouchairi, B.; Goureaux, G., Polarized memory switching effects in Ag2Se/Se/M thin film sandwiches, Thin solid films 97 (1982) 165-171.			
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	CV	Bondarev, V.N.; Pikhitsa, P.V., A dendrite model of current instability in RbAg4I5, Solid State Ionics 70/71 (1994) 72-76.			
	CW	Boolchand, P., The maximum in glass transition temperature (Tg) near x=1/3 in GexSe1-x Glasses, Asian Journal of Physics (2000) 9, 709-72.			
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				Filing Date	December 12, 2003
				First Named Inventor	Kristy A. Campbell
				Art Unit	NA 2029
				Examiner Name	Not Yet Assigned - Yevsi Kov
Sheet	3	of	8	Attorney Docket Number	M4065.0698/P698-A

VY		steps in chalcogenide glasses, Properties and Applications of Amorphous Materials, M.F. Thorpe and Tichy, L. (eds.) Kluwer Academic Publishers, the Netherlands, 2001, pp. 97-132.	
VY	CA1	Boolchand, P.; Enzweiler, R.N.; Tenhover, M., Structural ordering of evaporated amorphous chalcogenide alloy films: role of thermal annealing, Diffusion and Defect Data Vol. 53-54 (1987) 415-420.	
	CB1	Boolchand, P.; Grothaus, J.; Bresser, W.J.; Suranyi, P., Structural origin of broken chemical order in a GeSe2 glass, Phys. Rev. B 25 (1982) 2975-2978.	
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	CK1	Chen, C.H.; Tai, K.L., Whisker growth induced by Ag photodoping in glassy GexSe1-x films, Appl. Phys. Lett. 37 (1980) 1075-1077.	
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	CN1	Cohen, M.H.; Neale, R.G.; Paskin, A., A model for an amorphous semiconductor memory device, J. Non-Cryst. Solids 8-10 (1972) 885-891.	
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	CR1	Dearnaley, G.; Stoneham, A.M.; Morgan, D.V., Electrical phenomena in amorphous oxide films, Rep. Prog. Phys. 33 (1970) 1129-1191.	
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	CT1	den Boer, W., Threshold switching in hydrogenated amorphous silicon, Appl. Phys. Lett. 40 (1982) 812-813.	
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				Art Unit	N/A 2829
				Examiner Name	Not Yet Assigned Yesi Ko ✓
				Attorney Docket Number	M4065.0698/P698-A

VY	CW1	El Gharris, Z.; Bourahla, A.; Vautier, C., Role of photoinduced defects in amorphous Ge <sub>x</sub> Se <sub>1-x</sub> photoconductivity, J. Non-Cryst. Solids 155 (1993) 171-179.
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	CZ1	El-kady, Y.L., The threshold switching in semiconducting glass Ge <sub>21</sub> Se <sub>17</sub> Te <sub>62</sub> , Indian J. Phys. 70A (1996) 507-516.
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	CJ2	Fleury, G.; Hamou, A.; Viger, C.; Vautier, C., Conductivity and crystallization of amorphous selenium, Phys. Stat. Sol. (a) 64 (1981) 311-316.
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	CL2	Fritzsche, H., Electronic phenomena in amorphous semiconductors, Annual Review of Materials Science 2 (1972) 697-744.
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VY	CQ2	Gupta, Y.P., On electrical switching and memory effects in amorphous chalcogenides, J. Non-Cryst. Sol. 3 (1970) 148-154.
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				Examiner Name	Not Yet Assigned Yevsikov
Sheet	5	of	8	Attorney Docket Number	M4065.0698/P698-A

VY	CS2	Haifz, M.M.; Ibrahim, M.M.; Dongol, M.; Hammad, F.H., Effect of composition on the structure and electrical properties of As-Se-Cu glasses, J. Apply. Phys. 54 (1983) 1950-1954.
VY	CT2	Hajto, J.; Rose, M.J.; Osborne, I.S.; Snell, A.J.; Le Comber, P.G.; Owen, A.E., Quantization effects in metal/a-Si:H/metal devices, Int. J. Electronics 73 (1992) 911-913.
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	CX2	Hayashi, T.; Ono, Y.; Fukaya, M.; Kan, H., Polarized memory switching in amorphous Se film, Japan. J. Appl. Phys. 13 (1974) 1163-1164.
	CY2	Hegab, N.A.; Fadel, M.; Sedeek, K., Memory switching phenomena in thin films of chalcogenide semiconductors, Vacuum 45 (1994) 459-462.
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	CB3	Hosokawa, S., Atomic and electronic structures of glassy GexSe1-x around the stiffness threshold composition, J. Optoelectronics and Advanced Materials 3 (2001) 199-214.
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VY A	CO3	Kolobov, A.V., On the origin of p-type conductivity in amorphous chalcogenides, J. Non-Cryst. Solids 198-200 (1996) 728-731.		
A	CP3	Korkinova, Ts.N.; Andreichin,R.E., Chalcogenide glass polarization and the type of contacts, J. Non-Cryst. Solids 194 (1996) 256-259.		
	CQ3	Kozicki, et al., "Applications of Programmable Resistance Changes in Metal-doped Chalcogenides", Proceedings of the 1999 Symposium on Solid State Ionic Devices, Editors - E.D. Wachsman et al., The Electrochemical Society, Inc., 1 - 12 (1999).		
	CR3	Kozicki, et al., Nanoscale effects in devices based on chalcogenide solid solutions, Superlattices and Microstructures, 27, 485-488 (2000).		
	CS3	Kozicki, et al., Nanoscale phase separation in Ag-Ge-Se glasses, Microelectronic Engineering, vol. 63/1-3,155-159 (2002).		
	CT3	M.N. Kozicki and M. Mitkova, Silver incorporation in thin films of selenium rich Ge-Se glasses, Proceedings of the XIX International Congress on Glass, Society for Glass Technology, 226-227 (2001).		
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Sheet	7	of	8	Application Number	NEW- 15736617
				Filing Date	December 12, 2003
				First Named Inventor	Kristy A. Campbell
				Art Unit	N/A 2829
				Examiner Name	Not Yet Assigned Yevsi Kov
				Attorney Docket Number	M4065.0698/P698-A

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				Filing Date	December 12, 2003
				First Named Inventor	Kristy A. Campbell
				Art Unit	N/A - 2829
				Examiner Name	Not Yet Assigned Yevsi Kov
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Sheet

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of

5

Application Number

10/736,617

Filing Date

December 17, 2003

First Named Inventor

Kristy A. Campbell

Art Unit

2825 2829 B

Examiner Name

R. Rocchegiani VYEVSIKov

Attorney Docket Number M4065.0698/P698-A

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant: Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
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Sheet	2	of	5		Application Number	10/736,617
					Filing Date	December 17, 2003
					First Named Inventor	Kristy A. Campbell
					Art Unit	2825 9
					Examiner Name	R. Rechegiani Yerushikov
					Attorney Docket Number	M4065.0698/P698-A
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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>					<b>Complete If Known</b>	
Sheet	3	of	5		Application Number	10/736,617
					Filing Date	December 17, 2003
					First Named Inventor	Kristy A. Campbell
					Art Unit	2825 9
					Examiner Name	R. Rechegiani-Yevsikov
					Attorney Docket Number	M4065.0698/P698-A
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Substitute for form 1449A/PTO					Complete if Known	
					Application Number	10/736,617
					Filing Date	December 17, 2003
					First Named Inventor	Kristy A. Campbell
					Art Unit	2825-9
					Examiner Name	R. Rocchegiani-Yevsikov
Sheet	4	of	5		Attorney Docket Number	M4065.0698/P698-A

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Approved for use through 10/31/2002. OMB 0651-0031  
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Substitute for form 1449A/PTO				Complete if Known	
				Application Number	10/736,617
				Filing Date	December 17, 2003
				First Named Inventor	Kristy A. Campbell
				Art Unit	2825 9
				Examiner Name	R. Rocchegiani-Yevsikov
Sheet	5	of	5	Attorney Docket Number	M4065.0698/P698-A

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)			
VY	**BA	JP 5-6126916	10/19981	Akira et al.	<input type="checkbox"/>
VY	**BB	WO 00/48196	08/17/2000	Kozicki et al.	<input type="checkbox"/>
VY	**BC	WO 02/21542	03/14/2002	Kozicki et al.	<input type="checkbox"/>

Examiner Signature	V. Yevsikov	Date Considered	03/01/05
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